

III. Remarks

Claims 1-29 were originally filed in the present application. Claims 23 and 24 were subsequently canceled without prejudice or disclaimer. No claims are currently canceled or added. Thus, claims 1-22 and 25-29 remain pending in the present application.

Reconsideration of this application in light of the following remarks is requested.

Rejections under 35 U.S.C. §103: Hanak

Claim 1

The Examiner has maintained the rejection of claims 1, 6, 9, and 10 under 35 U.S.C. §103(a) as being unpatentable in view of U.S. Patent No. 4,593,644 to Hanak ("Hanak"). Applicants traverse this rejection on the grounds that Hanak is defective in establishing a *prima facie* case of obviousness with respect to claim 1 and, thus, its dependent claims 6, 9, and 10.

As the PTO recognizes in MPEP §2142:

... The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following reasons.

As provided in 35 U.S.C. §103:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains

Thus, when evaluating claim 1 for determining obviousness, all limitations of claim 1 must be evaluated. However, Hanak fails to teach a system for manufacturing semiconductor IC devices, the system comprising a plurality of process tools each in communication with an operating control system, the system also comprising a process intermediate station in communication with the operating control system, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) that is not integral to any of the plurality of process tools, and wherein a gas purge device is included in the process intermediate station, among other elements of claim 1.

In contrast, the Examiner alleges that subchamber 44 is analogous to the instantly claimed stocker. However, the subchamber 44 is explicitly integral to the other process tools of Hanak – specifically, the subchamber 44 is integral to the other subchambers 46, 48, 50 and 52, such that a carrier 80 can pass completely through each of the subchambers 44, 46, 48, 50 and 52 in a continuous uninterrupted motion. (Col. 9, lines 50-54). Consequently, the Hanak subchamber 44 is not analogous to the instantly claimed stocker because the subchamber 44 is explicitly integral to the other process tools, whereas claim 1 of the present application explicitly requires the stocker to not be integral to the other process tools.

Moreover, the Examiner maintains that “it would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the stations/tools/chambers/subchambers, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.” However, it appears that the Examiner’s reliance on and citation of *Nerwin* is misplaced, because Applicants find no such “holding” in *Nerwin*. The only statement in *Nerwin* to which the Examiner may possibly be referring is one which indicates that “[t]he mere fact that a given structure is integral does not preclude its consisting of various elements.” This statement is a construction of the term “integral,” and does not appear to stand for the proposition the Examiner now urges. Thus, the *Nerwin* decision does not support the Examiner’s position.

More specifically, the factual situation in *Nerwin* merely involved the question of whether an integral structure is precluded from being separated and considered as separate elements. To the extent there is an analogy to the integral “stations/tools/chambers/subchambers” of Hanak, if any such analogy indeed exists, the presently claimed invention involves more than merely separating such “stations/tools/chambers/subchambers” into separate components. The differences between the presently claimed invention and Hanak lie not in merely the separating of the subchamber 44 from Hanak’s other process tools, but rather the use of a non-integral stocker or OHB to perform gas purging external to and independently of the other process tools. Thus, the Examiner has not established a *prima facie* case of obviousness. In particular, the Examiner has not established that a non-integral stocker or OHB including a gas purge device according to the present application is taught or suggested in the prior art. Hanak only teaches that a component integral to other processing components can be employed for gas purging, and fails to suggest that any component not integral to the other processing components can be employed for gas purging.

Because Hanak fails to teach or suggest a non-integral stocker or OHB including a gas purge device in the context of claim 1, and because the Examiner’s reliance on *Nerwin* appears to be misplaced,

it is impossible for Hanak to render obvious the subject matter of claim 1, as a whole. Consequently, the explicit terms of §103(a) cannot be met by Hanak with respect to claim 1.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness cannot be met by Hanak with respect to claim 1. Consequently, Applicants respectfully request the Examiner withdraw the §103 rejection of claim 1 based on Hanak.

Claim 11

Claim 11 has also been rejected under 35 U.S.C. §103(a) as being unpatentable in view of Hanak. Applicants traverse this rejection on the grounds that Hanak is defective in establishing a *prima facie* case of obviousness with respect to claim 11 for the following reasons.

As in the manner described above, when evaluating claim 11 for determining obviousness, all limitations of claim 11 must be evaluated. However, Hanak fails to teach a system for manufacturing semiconductor IC devices, the system comprising a plurality of process tools each in communication with an operating control system, the system also comprising a plurality of process intermediate stations each in communication with the operating control system, wherein each of the plurality of process intermediate stations is one of a stocker and an overhead buffer (OHB) that is not integral to any of the plurality of process tools, and wherein at least one gas purge device is included in at least one of the plurality of process intermediate stations, among other elements of claim 11. Therefore, it is impossible for Hanak to render obvious the subject matter of claim 11, as a whole. Consequently, the explicit terms of §103(a) cannot be met by Hanak with respect to claim 11 of the present application.

As with claim 1 above, the Examiner also relies on *Nerwin* to reject claim 11, maintaining that it would have been obvious to separate the stations/tools/chambers/subchambers. However, as explained above, the *Nerwin* decision does not support the Examiner's position.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness cannot be met by Hanak with respect to claim 11. Consequently, Applicants respectfully request the Examiner withdraw the §103 rejection of claim 11 based on Hanak.

Claim 16

Claims 16, 19, 21, and 29 have also been rejected under 35 U.S.C. §103(a) as being unpatentable in view of Hanak. Applicants traverse this rejection on the grounds that Hanak is defective in establishing a *prima facie* case of obviousness with respect to claim 16 for the following reasons.

As in the manner described above, when evaluating claim 16 for determining obviousness, all limitations of claim 16 must be evaluated. However, Hanak fails to teach the utilization of an OHB

having an integral gas purge station to perform gas purging of a workpiece, wherein the OHB is not integral to either of first and second process tools between which the workpiece is transferred via an operating control system, among other elements of claim 16. Therefore, it is impossible for Hanak to render obvious the subject matter of claim 16, as a whole. Consequently, the explicit terms of §103(a) cannot be met by Hanak with respect to claim 16 of the present application.

As with claims 1 and 11 above, the Examiner also relies on *Nerwin* to reject claim 16, maintaining that it would have been obvious to separate the stations/tools/chambers/subchambers. However, as explained above, the *Nerwin* decision does not support the Examiner's position.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness cannot be met by Hanak with respect to claim 16. Consequently, Applicants respectfully request the Examiner withdraw the §103 rejection of claim 16 based on Hanak.

Rejections under 35 U.S.C. §103: Hanak in view of Wehrung

Claims 2 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hanak in view of U.S. Patent Application Publication No. 2002/0164242 of Wehrung ("Wehrung"). Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 1 and 16 and, thus, their dependent claims 2 and 18. That is, as described above, Hanak fails to teach a system or method for manufacturing semiconductor IC devices, wherein a process intermediate station is in communication with an operating control system, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) that is not integral to any of a plurality of process tools also included in the system, and wherein a gas purge device is included in the process intermediate station, among other elements of claims 1 and 16. Moreover, Wehrung fails to cure this shortcoming of Hanak.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Hanak and Wehrung. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103 based on the combination of Hanak and Wehrung.

Rejections under 35 U.S.C. §103: Hanak in view of Pasadyn

Claims 3-5, 12-15, 17 and 25-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hanak in view of U.S. Patent No. 6,678,570 to Pasadyn ("Pasadyn"). Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1, 11 and 16 and, thus, their dependent claims 3-5, 12-15, 17 and 25-

28. That is, as described above, Hanak fails to teach a system or method for manufacturing semiconductor IC devices, wherein a process intermediate station is in communication with an operating control system, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) that is not integral to any of a plurality of process tools also included in the system, and wherein a gas purge device is included in the process intermediate station, among other elements of claims 1, 11 and 16. Moreover, Pasadyn fails to cure this shortcoming of Hanak.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Hanak and Pasadyn. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103 based on the combination of Hanak and Pasadyn.

Rejections under 35 U.S.C. §103: Hanak in view of Chen

Claims 7, 8, 20 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hanak in view of U.S. Patent No. 6,821,644 to Chen ("Chen"). Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1 and 16 and, thus, their dependent claims 7, 8, 20 and 22. That is, as described above, Hanak fails to teach a system or method for manufacturing semiconductor IC devices, wherein a process intermediate station is in communication with an operating control system, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) that is not integral to any of a plurality of process tools also included in the system, and wherein a gas purge device is included in the process intermediate station, among other elements of claims 1 and 16. Moreover, Chen fails to cure this shortcoming of Hanak.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Hanak and Chen. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103 based on the combination of Hanak and Chen.

Rejections under 35 U.S.C. §102: Yamashita

Claims 1, 6, 9-11, 16, 19, 21 and 29 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,746,008 to Yamashita, et al. ("Yamashita").

Claim 1

The PTO provides in MPEP §2131 that: "to anticipate a claim, the reference must teach every element of the claim." Therefore, to support a rejection of claim 1, Yamashita must contain all of the elements of claim 1.

The Examiner maintains that:

(3) "a process intermediate station in communication with the operating control system, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) that is not integral to any of the plurality of process tools" and "a gas purge device, where the gas purge device is included in the process intermediate station" is taught by Yamashita et al. disclosing a container clean stocker "for storing the containers gas purged" (col. 8, lines 8-14), wherein "the purging station is separate from the cleaning equipment" (col. 8, lines 31-35).

Thus, the Examiner maintains that Yamashita teaches a "clean container stocker" for storing gas purged containers, and also teaches a "purging station" that is separate from the cleaning equipment.

Regarding the "clean container stocker," Yamashita only teaches that its container storing section 1C may be used for storing gas-purged containers. That is, Yamashita merely teaches that the container storing section 1C may be used as a clean container stocker. However, Yamashita fails to further disclose that the container storing section 1C may itself include a gas purge device or otherwise be employed to perform gas purging. In other words, Yamashita's container storing section 1C is operable to contain purged containers, but is not operable to purge items stored therein. Applicants maintain that a component configured to merely store gas-purged items is patentably distinguishable from a component configured to perform gas-purging of items stored therein, such as a stocker or OHB that includes a gas purge device.

Regarding the "purging station," Yamashita only teaches that the purging station is operable to perform gas purging. That is, Yamashita fails to further disclose that the purging station is further employed as a stocker or OHB. For example, Yamashita fails to teach that the purging station is configured as a stocker or OHB to store those items that are purged via the purging station. Applicants maintain that a component configured to gas-purge items is patentably distinguishable from a component

configured to perform gas-purging of items stored therein, such as a stocker or OHB that includes a gas purge device.

Thus, the §102(b) rejection of claim 1 is not supported by Yamashita. Accordingly, Applicants respectfully request the Examiner withdraw the §102(b) rejection of claim 1 and its dependent claims.

Claim 11

Yamashita also fails to disclose analogous elements recited in claim 11. Consequently, the explicit terms of §102(b) cannot be met by Yamashita with respect to claim 11. Accordingly, Applicants respectfully request the Examiner withdraw the §102(b) rejection of claim 11 and its dependent claims.

Claim 16

Yamashita also fails to disclose analogous elements recited in claim 16. Consequently, the explicit terms of §102(b) cannot be met by Yamashita with respect to claim 16. Accordingly, Applicants respectfully request the Examiner withdraw the §102(b) rejection of claim 16 and its dependent claims.

Rejections under 35 U.S.C. §103: Yamashita in view of Wehrung

Claims 2 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamashita in view of Wehrung. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 1 and 16 and, thus, their dependent claims 2 and 18. That is, as described above, Yamashita fails to teach each and every element recited in claims 1 and 16. Moreover, Wehrung fails to cure this shortcoming of Yamashita.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Yamashita and Wehrung. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103 based on the combination of Yamashita and Wehrung.

Rejections under 35 U.S.C. §103: Yamashita in view of Pasadyn

Claims 3-5, 12-15, 17 and 25-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamashita in view of Pasadyn. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1, 11 and 16 and, thus, their dependent claims 3-5, 12-15, 17 and 25-28. That is, as described above, Yamashita fails to teach each and every element recited in claims 1, 11 and 16. Moreover, Pasadyn fails to cure this shortcoming of Yamashita.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Yamashita and Pasadyn. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. § 103 based on the combination of Yamashita and Pasadyn.

Rejections under 35 U.S.C. §103: Yamashita in view of Chen

Claims 7, 8, 20 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamashita in view of Chen. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1 and 16 and, thus, their dependent claims 7, 8, 20 and 22. That is, as described above, Yamashita fails to teach each and every element recited in claims 1 and 16. Moreover, Chen fails to cure this shortcoming of Yamashita.

Thus, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met by the combination of Yamashita and Chen. Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103 based on the combination of Yamashita and Chen.

IV. Conclusion

It is clear from all of the foregoing that independent claims 1, 11 and 16 are in condition for allowance. Dependent claims 2-10, 12-15, 17-22 and 25-29 depend from and further limit independent claims 1, 11 and 16 and, therefore, are allowable as well.

It is believed that all matters set forth in the Office action have been addressed. Favorable consideration and an early indication of the allowability of the claims are respectfully requested. Should the Examiner deem that an interview with Applicants' undersigned attorney would expedite consideration, the Examiner is invited to call the undersigned attorney at the telephone number indicated below.

Respectfully submitted,




Dave R. Hofman
Registration No. 55,272

Dated: October 11, 2006

HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 972/739-8630
IP Facsimile No. 214/200-0853
Client Ref. No.: 2003-0893
Attorney Docket No.: 24061.83

Certificate of Service

I hereby certify that this correspondence is being filed with the U.S. Patent and Trademark Office via EFS-Web on October 11, 2006.


Bonnie Boyle